



Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2006-AAL-77-OE

Issued Date: 03/27/2006

Kent Gale
Alaska Fire Service
P.O. Box 35005
Fort Wainwright, AK 99703

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has completed an aeronautical study under the provisions of 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Antenna Tower
Location:	Fort Yukon, AK
Latitude:	66-34-12.9 NAD 83
Longitude:	145-14-43.6
Heights:	40 feet above ground level (AGL) 473 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure should be marked and/or lighted in accordance with FAA Advisory Circular 70/7460-1 K, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

It is required that the enclosed FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

☐ At least 10 days prior to start of construction
(7460-2, Part I)

☒ Within 5 days after the construction reaches its greatest height
(7460-2, Part II)

As a result of this structure being critical to flight safety, it is required that the FAA be kept apprised as to the status of the project. Failure to respond to periodic FAA inquiries could invalidate this determination.

See attachment for additional condition(s) or information.

This determination expires on 09/27/2007 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on

the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before April 26, 2006. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace and Rules Division - Room 423, Federal Aviation Administration, 800 Independence Ave, Washington, D.C. 20591.

This determination becomes final on May 6, 2006 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Office of Airspace and Rules via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (202)267-9219.
On any future correspondence concerning this matter, please refer to
Aeronautical Study Number 2006-AAL-77-OE.

Signature Control No: 456386-449075

(DNH)

Kevin P. Haggerty
Manager, Obstruction Evaluation Service

Attachment(s)
Additional Information
Frequency Data

7460-2 Attached

NARRATIVE AERONAUTICAL STUDY NO. 2006-AAL-77-OE

1. LOCATION OF PROPOSED CONSTRUCTION

The existing 40 AGL, unlighted, Alaska Fire Service antenna structure is to be replaced with a new OSHA-compliant, 40 AGL (473 MSL) antenna tower. It would be located next the Fort Yukon BLM Fire Station between the Fort Yukon (FYU) airport runway and the Yukon River. The proposed tower is 2,609 feet from the RWY 21 threshold and 753 feet on a line perpendicular to the runway centerline. The threshold of FYU RWY 03 elevation is 431 MSL.

2. OBSTRUCTION STANDARDS EXCEEDED

The structure is identified as an obstruction under the standards of Federal Aviation Regulations, Part 77, as follows Section 77.25(e) The transitional surface area designated to prevent tall structures from being located at the edge of the primary and approach surfaces of an airport established under 77.23, 77.25, or 77.29. The existing and proposed towers exceed FYU RWY 03 transition area by seven (7) feet.

3. EFFECT ON AERONAUTICAL OPERATIONS

a. The impact on arrival, departure, and en route procedures for aircraft operating under visual flight rules (VFR) follows: None.

b. The impact on arrival, departure, and en route procedures for aircraft operating under instrument flight rules (IFR) follows: FYU has four IFR instrument approaches: VOR RWY 03, VOR RWY 21, VOR/DME or TACAN or GPS RWY 3, and VOR/DME or TACAN or GPS RWY 21. The VOR/DME or TACAN RWY 03 Minimum Decision Altitudes for all aircraft categories are 740-1 1/4 (400-1 1/4). The proposed tower is in the transition surface area for these approaches.

c. The impact on all-existing public-use airports and aeronautical facilities follows: None.

d. The impact on all planned public-use airports and aeronautical facilities follow: None.

e. The cumulative impact resulting from the proposed construction or alteration of a structure when combined with the impact of other existing or proposed structures follows: None.

4. CIRCULATION AND COMMENTS RECEIVED

The proposal was not circulated for public comment based upon the results of an internal aeronautical study. The incorporation of marking and lighting will mitigate the proposed tower's impact to the instrument approaches at FYU.

5. DETERMINATION - NO HAZARD TO AIR NAVIGATION

It is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient use of navigable airspace by aircraft.

6. BASIS FOR DECISION

The proposed antenna would exceed the Federal Aviation Regulation (FAR), Part 77 Transitional Surface by seven (7) feet. The proposed tower's impact to the instrument approaches at FYU may be mitigated by obstruction lighting.

7. CONDITIONS

The structure shall be marked and lighted as outlined in chapters 4, 5 and 12,

of Advisory Circular AC 70/7460-1K. The advisory circular is available online at http://www.faa.gov/ats/ata/ai/AC70_7460_1K.pdf. It is also free of charge, from the Department of Transportation, Subsequent Distribution Section, M-494.3, 400 7th Street, SW, Washington, DC 20590.

Frequency Data for ASN 2006-AAL-77-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
127.45		MHz	25	KW
164.15		MHz	8	KW
415.475		MHz	8	KW
417.075		MHz	8	KW
417.45		MHz	8	KW
417.6625		MHz	8	KW